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| APPLICATION NO.         | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.              | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|----------------------------------|------------------|
| 10/042,955              | 01/08/2002  | Brent Anderson       | 113937-002                       | 4496             |
| 24573                   | 7590        | 09/17/2004           | EXAMINER                         |                  |
| BELL, BOYD & LLOYD, LLC |             |                      | PIAZZA CORCORAN, GLADYS JOSEFINA |                  |
| PO BOX 1135             |             |                      | ART UNIT                         |                  |
| CHICAGO, IL 60690-1135  |             |                      | PAPER NUMBER                     |                  |

1733

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/042,955

Applicant(s)

ANDERSON ET AL.

Examiner

Gladys J Piazza Corcoran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-8,10-27,29,30 and 32-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-27,29,30 and 32-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 1, 2004 has been entered.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 25 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 25 recites that the backup roll is "rubber, cork, or plastic". While the Specification has support for providing the backup roll form rubber or plastic, there is no disclosure in the original Specification for providing a backup roll of cork.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3, 4, 5, 10, 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 3 recites the limitation "the second polymeric material" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is suggested to amend to --said first non-molten polymeric sheet--.
7. Claim 4 recites the limitation "the second polymeric material" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is suggested to amend to --said first non-molten polymeric sheet--.
8. Claim 5 recites the limitation "the second polymeric material" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is suggested to amend to --said first non-molten polymeric sheet--.
9. Claim 10 is unclear by being dependent on cancelled claim 9. It is suggested to change the dependency to a non-cancelled claim.
10. Claim 10 recites the limitation "the third polymeric material" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested to amend to -  
-said second non-molten polymeric sheet--.
11. Claim 11 recites the limitation "the third polymeric material" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested to amend to -  
-said second non-molten polymeric sheet--.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1, 3, 5, 6, 10-20, 22-27, 29, 30, 32-41, 43, 48, 49, 56-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884).

Kristen discloses a method for treating as surface of a layered polymeric structure suitable for forming a fluid container where two polymeric sheets (heat sealable inner layer and gas-impermeable outer layer) are bonded with an intermediate polymeric material (intermediate layer) and where an outer surface of one of the sheets is textured to form a pattern on the outer surface where the pattern is dimensioned to

form fluid pathways on the outer surface to assist in removing fluid from the surface (intersecting channels).

Kristen does not entirely disclose all the particulars of the method of texturing the structure, stating that the films may be laminated, co-extruded, or extrusion coated and that the texturing (embossments) can be formed during extrusion or post-embossed. Mallik discloses it is known in the art to form packaging material laminates by embossing the laminate during extrusion lamination in order to overcome the disadvantage of disrupting the barrier properties when post-embossing and prevent flattening the embossed pattern when embossing prior to laminating. Mallik teaches that the embossed laminates for packaging materials are formed by providing a first and second non-molten polymeric sheet material, positioning the first or second sheets to overlap to define an interference zone, directing a first molten polymeric material into the interference zone to adhere the first sheet to the second sheet to form the layered structure and texturing an outer surface of the first sheet or the second sheet using a chill roll. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the laminate as shown by Kristen by overlapping two non-molten sheets, directing a molten material between the overlap and texturing the outer surface of one of the sheets utilizing a chill roll to form a pattern as is considered a known process in the art and an improvement over pre and post embossing as shown by Mallik.

As to claim 3, Kristen discloses the sheets are monolayers. As to claims 5,6 and 10, Kristen and Mallik disclose the claimed polymers for the outer sheets, additionally, it

would have been well within the purview of one of ordinary skill in the art to select any of the well known polymeric materials for packaging layers. As to claim 11, Kristen discloses the sheet is a polyamide (nylon) (column 4, lines 54-61). As to claim 12, such nylons are considered well known nylons in the art for packaging materials and it would have been well within the purview of one of ordinary skill in the art to select such materials. As to claim 13, Mallik discloses extruding the intermediate layer. As to claim 14, both Kristen and Mallik disclose the intermediate layer is a polyolefin layer. As to claim 15, the molten polymeric material in Kristen and Mallik is a homopolymer of ethylene. As to claim 16, Mallik discloses the step of texturing is carried out substantially simultaneously to the step of joining. Mallik additionally discloses it is known in the art to perform the step of texturing either prior to or after laminating and it would have been well within the purview of one of ordinary skill in the art to perform the texturing step either before or after laminating when not concerned about losing barrier properties or flattening of the pattern. As to claims 17, 18, 19, Mallik discloses texturing by contacting the sheet with a surface having a pattern on a chill roll. As to claim 20, the embossing roll is considered to read on a back-up roll. As to claims 22 and 23, the pattern is such that the surface of the embossing roll has parts that extend inward and parts that extend outward. As to claim 24, Kristen discloses the embossing rolls may be steel on steel or steel on rubber and Mallik discloses the chill roll may comprise materials including steel. As to claim 25, Kristen discloses the back-up roll is made of rubber. Additionally it is noted that it is known in the art to form rolls of cork or plastic and it would have been well within the purview of one of ordinary skill in the art at the

time of the invention to provide the rolls of known materials. As to claim 26, the pattern in Kristen is considered to comprise a plurality of spaced objects (waffle pattern). As to claims 27 and 29, as discussed above, Kristen and Mallik disclose the claimed polymers for the outer sheets, additionally, it would have been well within the purview of one of ordinary skill in the art to select any of the well known polymeric materials for packaging layers. As to claim 30, Mallik discloses the step of texturing is carried out substantially simultaneously to the step of joining. As to claim 32, the intermediate layer in Kristen and Mallik is considered to be an adhesive material. As to claims 33, 34, 35, Mallik discloses texturing by contacting the sheet with a surface having a pattern on a chill roll. As to claim 36, the embossing roll is considered to read on a back-up roll. As to claim 37, Mallik discloses that all the rolls are chilled therefore, the embossing roll reads on the second roll having the surface pattern. As to claims 38 and 39, the pattern is such that the surface of the embossing roll has parts that extend inward and parts that extend outward. As to claim 40, the pattern in Kristen is generally a checkerboard pattern (waffle pattern). As to claim 41, Kristen discloses the pattern is a series of protuberances (column 4). As to claim 43, Kristen discloses the protuberances have a polygonal shape (rectangular and triangular). As to claims 48, 49, 56, Kristen discloses the sheets are monolayers. As to claim 57, Kristen discloses the sheet materials are of a variety of well known packaging materials including polyamide and polyester (column 4, lines 54-61). As to claim 58, the intermediate layer in both Kristen and Mallik is a polyolefin layer. As to claims 59 and 60, Kristen and Mallik disclose the intermediate layer is a homopolymer of polyethylene.



15. Claims 20-23, 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as applied to claims 17, 18 33, 34 above, and further in view of Karfoil et al. '594 (US Patent No. 2,392,594) and/or Karfoil et al. '300 (US Patent No. 2,477,300).

As to claims 20, 21, 37, it is well known in the embossing art to provide two rolls including a back up roll containing the embossing surface pattern for embossing the material. For example, Karfoil '594 discloses an example of two rolls E and E' for embossing polymeric material prior to the laminating step in order to ensure a proper embossment of the material. While, Karfoil '300 discloses an example of where two rolls (11 and 4) are provided with a surface pattern in order to provide the pattern on both sides of the material. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of forming a laminate as shown by Kristen and Mallik by providing two embossing rollers including a back up roll with a surface pattern as is considered well known in the art and further exemplified by Karfoil '594 in order to provide a proper embossment in the material and/or Karfoil '300 in order to emboss both sides of the laminate.

As to claims 22, 23, 38, 39 it is considered well known in the art to emboss with surface patterns containing patterns that either extend outward, extend inward or both. For example, the rolls in Karfoil '594 contain inward and outward extending patterns (E, E'). Additionally, the rolls in Karfoil '300 also show rolls containing inward and outward extending patterns. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the laminate as shown in Kristen and Mallik by providing

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the pattern as extending inward and/or outward as is considered well known in the art and further exemplified by Karfoil '594 and/or Karfoil '300.

16. Claims 42, 44, 45, 46, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as applied to claim 41 above, and further in view of Taunton (US Patent no. 2,778,171) and/or Taunton (US Patent No. 2,778,173).

It is considered well known in the art to provide a variety of different patterns including circular, irregular, multiple shapes on one surface, tear drop, S-shaped etc. for providing passage ways for fluid to flow in packaging materials. For example, the Taunton references disclose it is known in the art to provide a pattern of circular protuberances, irregular shape patterns, s-shaped patterns and protuberances of differing shapes. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the laminate as shown by Kristen and Mallik by providing the pattern of embossments in a variety of well known and obvious patterns in order to provide passage for fluids as exemplified by the Taunton references, only the expected results would be attained.

17. Claims 4, 5, 6, 10, 27, 29, 48, 50-54, 56-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as applied to claim 30 above, and further in view of Araki et al. (WO 00/18836 with EP 1153974 as the English equivalent).

Kristen discloses that the laminate includes sealant and barrier layers of a variety of materials and additional intermediate layers of a variety of materials. As to claims 5,

6, 11, 27 and 29, Araki discloses the well known materials for forming the polymeric layers. As to claims 4, 48, 50, 51, 56, Araki discloses it is known in the art to provide sealant or base materials of either mono or multiple layers. As to claims 52-54, Araki discloses multiple layers selected from a group of polymers including polyolefins, barrier materials, PVOH, PVDC (page 17). As to claim 57, Araki also discloses that the base material may comprise of polyamide or polyester (page 17). As to claim 58, both Kristen and Araki disclose the intermediate layer is of a polyolefin material. As to claim 59 and 60, Kristen discloses the intermediate layer is a homo polymer of polyethylene. As to claim 59, Araki discloses the intermediate layer (resin layer) is a copolymer of ethylene and alpha-olefin having from 3-20 carbons. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of forming a laminate as shown in Kristen and Mallik with well known material layers and compositions for the barrier, sealant and intermediate layers as exemplified by Araki, only the expected results would be attained.

18. Claims 7, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as applied to claims 6, 11 above, and further in view of Hofmeister et al. (US Patent No. 6,500,559).

As to claim 7, Kirsten discloses forming the outer layers of polyolefin material in particular or polyethylene. Hofmeister discloses it is known in the art to form outer layers of packaging materials of polyolefins including copolymers of ethylene and alpha olefins from 3-20 carbons. It would have been obvious to one of ordinary skill in the art

at the time of the invention to provide the method of forming the packaging material as shown by Kristen and Mallik by providing well known materials in the packaging arts as the outer layers as exemplified by Hofmeister, only the expected results would be attained.

As to claim 12, Kristen discloses the outer layer is of a polyamide (nylon). It is considered well known in the art to use nylon 6,6, nylon 6, or nylon 6,12 as nylon polyamide layers in packaging laminates. For example, Hofmeister discloses the claimed nylon layers as examples of known polyamide layers used in packaging materials (column 5, lines 1-10). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the polyamide layer in Kirsten with well known nylon layers in the packaging arts as exemplified by Hofmeister, only the expected results would be attained.

19. Claims 8, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as further taken with Araki et al. (WO 00/18836 with EP 1153974 as the English equivalent) as applied to claims 4, 51 above, and further in view of Hofmeister et al. (US Patent No. 6,500,559).

As discussed above, Araki discloses it is known in the art to provide the outer layers of packaging materials as multiple layers. Araki also discloses that the multi-layers are selected from a group of materials including EVOH. Hofmeister further discloses it is known to provide the outer layers of packaging materials of an ethylene and alpha-olefin copolymer (column 6, lines 7-17). It would have been obvious to one

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of ordinary skill in the art at the time of the invention to provide the method of forming the laminate as shown by Kirsten, Mallik and Araki with an outer layer of a multi-layer material containing a layer of EVOH as disclosed by Araki and a layer of ethylene and alpha-olefin copolymer as shown by Hofmeister that these layers are known in the art, only the expected results would be attained.

### ***Response to Arguments***

20. Applicant's amendments and arguments filed on July 1, 2004, have been fully considered and are persuasive in overcoming the previous rejections of the claims. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the references Kristen and Mallik as discussed above.

21. It is noted, the prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Knoerzer et al. (US Pub. No. 2004/0065402).

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gladys J Piazza Corcoran whose telephone number is (571) 272-1214. The examiner can normally be reached on M-F 8am-5:30pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gladys P. Corcoran  
Primary Examiner  
Art Unit 1733

GJPC